



GDAŃSK
PROJECT
WORKSHOPS

NOWA WAŁOWA THE FUTURE OF THE STREET

Report of the consultation process

GDAŃSK 2022



NOWA WAŁOWA

THE FUTURE OF THE STREET

Report on the consultation process

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1

Executive Summary

The Nowa Wałowa – the Future of the Street consultation process was held on commission from the Gdańsk City Architect's Office in cooperation with the Gdańsk Development Office with the view of compiling the design guidelines for execution of the investment plans connected with the development of ks. Popiełuszki Street in Gdańsk (also known as Nowa Wałowa). The development will include e.g. the laying of a new tram line and extension of the street towards the south-east in order to link it to Siennicka Street.

'Nowa Wałowa' is the working name of the planned road link between Aleja and Elbląska Streets, the latter one of Gdańsk's main access roads from the south-east. The planned street runs across the Young City and Polish Hook areas, where both districts are dynamically developing on post-industrial estates. The site with its rich history is unique for Gdańsk, its nature and identity born over 150 years of spatial, social, economic, and political transformations.

To date, stage I of the Nowa Wałowa project has been implemented, i.e. ks. Popiełuszki Street starting at Aleja Zwycięstwa Street (at Brama Oliwska) and now ending at the junction with Rybaki Górne Street. **Currently under conceptual consideration is further development of the road system with a tram line introduced into the street course, running south-east. The scope of works to comprise stage II in the development of Nowa Wałowa Street was the subject matter of the consultation process described in this report.**

Both the target layout of Nowa Wałowa Street, and its parameters should base on the stipulations of the local spatial development plans and the Gdańsk City Street Standard. The street layout and its parameters, as presented in the above-mentioned documents are aligned with the target vision of the Young City the development of which is planned for the nearest decades to come. The current demand for transport in the district under development is far more modest. The fact encouraged the city authorities to suggest phasing the investment and developing the reserve land to serve accompanying functions – public space included.

The conducted workshops served e.g. polling the stakeholders, residents included, to learn their opinions on the future of the said street. Based thereon, the most convenient scenario of staging the investment was selected, as well as the ways of utilizing the remaining reserve land to serve other functions. An equally important reason for holding the workshops was to identify the resi-

dents' expectations as concerns the aesthetic aspect and composition of the planned street. This is of significance in view of the rank of the district where the investment is to be carried through.

Four specific aims were adopted in the consultation process:

- **identification of the most beneficial spatial variant of the street in stage I of its development (single or double roadway),**
- **identification of transverse communication links which would satisfy the needs of all users,**
- **discussion of the future development of the space in the neighbourhood of the street,**
- **identification of the nature of the temporary development of the remaining land reserve.**

During the consultations and the accompanying workshops, the spatial and communication context of Nowa Wałowa Street and their impact on its ultimate course and form were analysed. Based on the conducted analyses, a list of post-consultation postulates was compiled, where the postulates should form a vital reference while designing Nowa Wałowa Street. The prime postulates include:

- **selection of the double-road variant (2x1 variant – two roadways, each with one traffic lane in each direction), as suiting the local context and the users' needs best,**
- **introduction of tall greenery (trees) in the planned road system, on both sides of the street (according to the landscape guideline drawing),**
- **allocation of priority to the comprehensive composition of the street space in the design process, so as to match its rank,**
- **identification of detailed guidelines as concerns communication solutions, e.g. the location of tram stops, or transverse pedestrian connections,**
- **identification of complementary actions going beyond the scope of the consulted solutions, of importance for the quality of the street use,**
- **construction of a two-way bicycle path on the southern side of the street,**
- **introduction of cycling traffic in the shared zone on the northern side.**

Further into this report, we provide a detailed overview of the scope of the study. We also present the conclusions and recommendations ensuing from the workshops – their synthetic list is presented in the report in a graphic format, and in the form of an appendix with separate drawings. The results of the consultation process, alongside other studies, shall be used to formulate detailed guidelines for future designers of the said street.

2 General Information

2.1. The City-Planning Context

The Nowa Wałowa concept originates from the planning assumptions of the study entitled *General spatial development of the Gdańsk-Gdynia port and urban complex*, first drawn back in the nineteen-fifties. The development lines adopted at the time were subsequently continued in the nineteen-seventies and eighties.

The planned road layout has undergone alterations together with the political and economic changes of the nineteen-nineties which resulted in releasing a substantial area of shipyard land from its industrial function. In reply to the arisen circumstances, the concept of building the Young

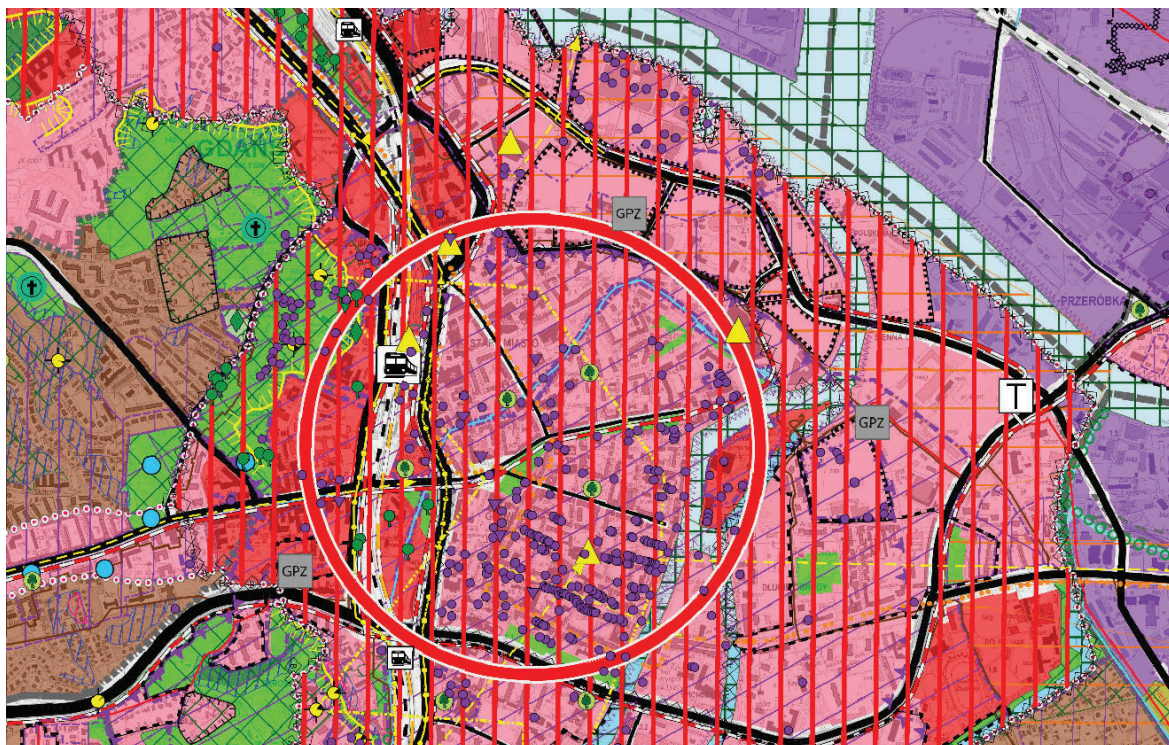


Fig. 1. The course of Nowa Wałowa St. – map extract of the Study of the conditions and spatial development lines of the City of Gdańsk, Gdańsk 2018.

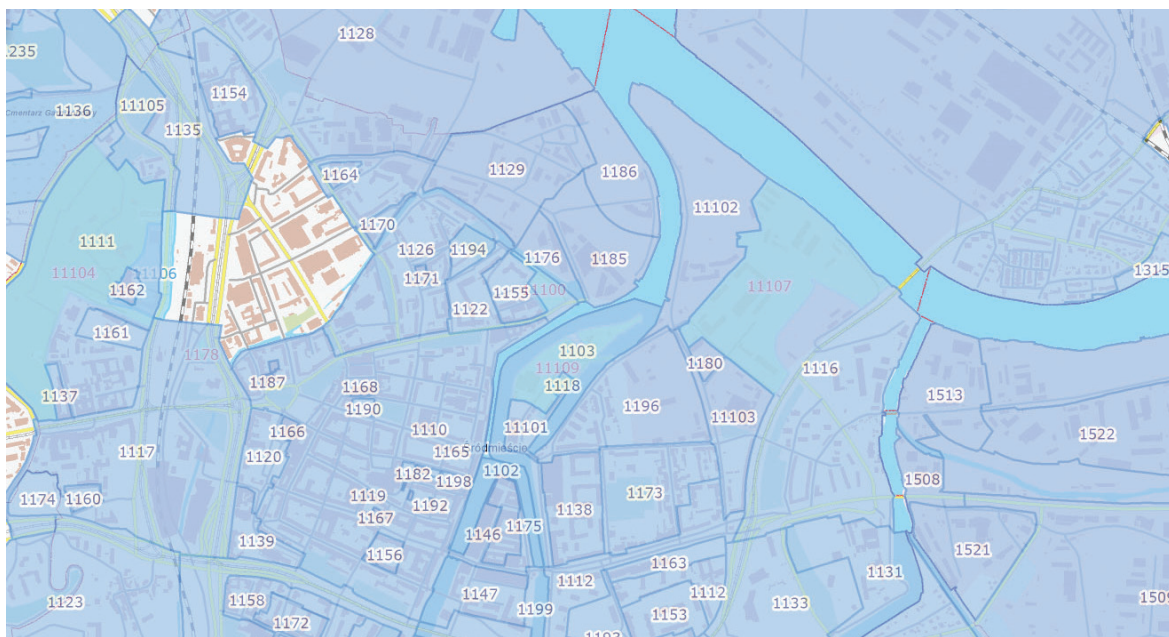
City on the post-shipyard land was borne, with Nowa Wałowa Street playing the role of the main transport axis of the new area.

According to the stipulations of the *Study of the conditions and spatial development direction of the City of Gdańsk* of 2018, the Nowa Wałowa Street is planned as a collector road incorporating a tramline and bicycle path. According to the assumptions underlying the document, the street plays the role of a viewing axis of importance for the city in the section from Aleja Zwycięstwa St. towards Rybaki Górne Street and is crossed transversely by one of the prime compositional axes of the city – the Road to Freedom (which in the present concept links Solidarity Square with Gdańsk Accord Square).

Areas of historic importance (the Gdańsk Shipyard) and the contemporary landscape dominant (European Solidarity Centre), on the other hand, lie in the immediate vicinity of the street. Therefore, one should highlight the fact that as early as in the above-mentioned study Nowa Wałowa Street was defined as a major transport artery and priority public space of the Young City district in formation.

The assumptions of the *Study of the conditions and spatial development directions of the City of Gdańsk* with respect to Nowa Wałowa Street were laid down in detail in the form of the local law, i.e. the following local spatial development plans:

- 1128-MPZP Gdańsk Young City – Shipyard, Solidarity Square;
- 1129 – MPZP City Centre – gasworks at the Motława River mouth;
- 1186 – MPZP Young City – gasworks II in the City of Gdańsk;
- 11102 – MPZP Polish Hook – the neighbourhood of the so-called Nowa Wałowa Street in the City of Gdańsk;
- 1116 – MPZP City Centre – the neighbourhood of Sienna Grobla and Polish Hook in the City of Gdańsk.

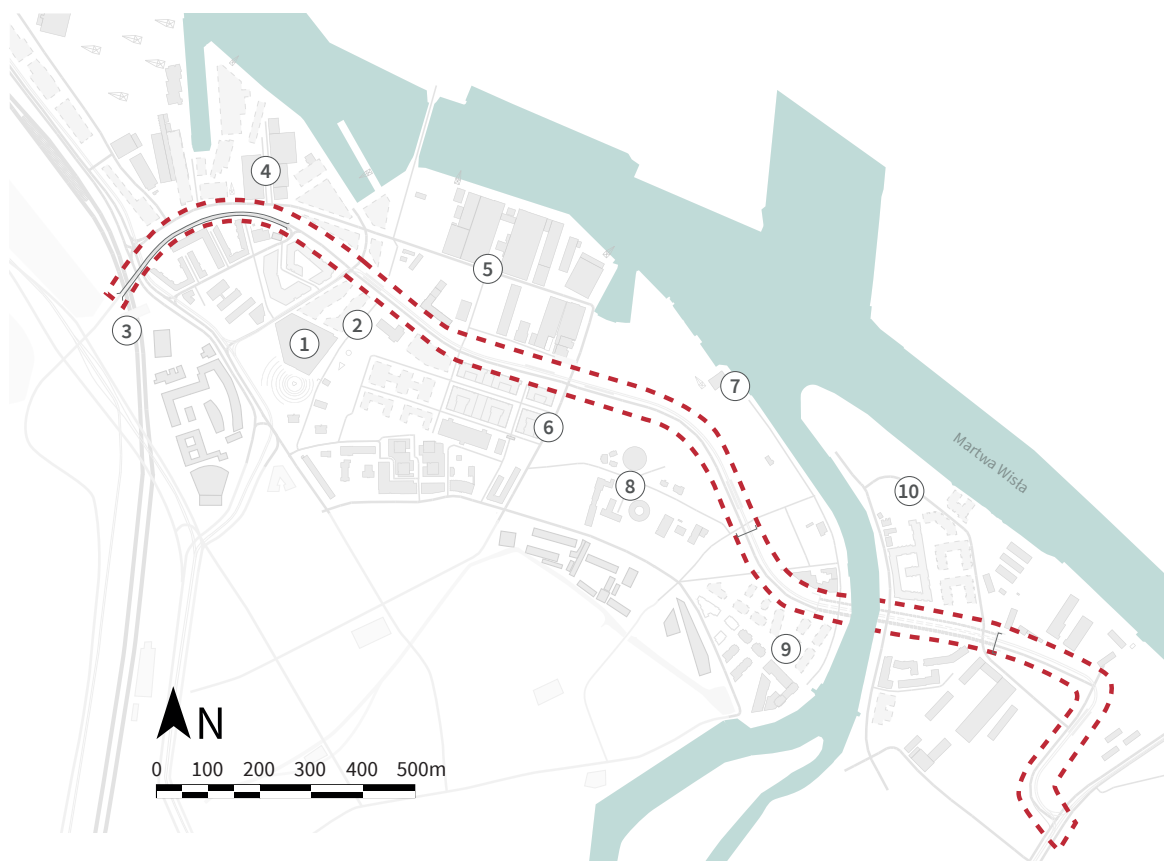


In line with the regulations of the local spatial development plans, Nowa Wałowa, in its target shape, is a street of the following parameters:

- width in between the demarcation lines – from 30 m to 50 m,
- design speed – 60 km/h,
- traffic lane width – 3.5 m,
- cross-section– two roadways, two traffic lanes each,
- equipment – pavements, tram route, main bicycle path.

2.2. The Scope of the Study

The area delimited for the workshop purposes is the lane of the planned road system of the existing ks. Popiełuszki Street together with the anticipated expansion of the street towards the south-east.



— scope of the study

- | | |
|---|-----------------------------|
| 1. European Solidarity Centre | 6. Rybaki Górne Street |
| 2. Road to Freedom | 7. Milk Peter – WL4 Gallery |
| 3. Yellow Overpass | 8. Gasworks |
| 4. Elektryków Street | 9. Brabank |
| 5. Narzędziowców St. and buildings of the Imperial Shipyard | 10. Polish Hook |

Map No. 1. The scope of the study. Produced by: the City Initiative Association, 2021.

The area unfolds as follows:

- in the west, it opens at the crossing of Robotnicza Street and ks. Popiełuszki Street. In the east, it follows the existing ks. Popiełuszki Street crossing Nowomiejska Street, the Road to Freedom, and ends at Rybaki Górne Street.
- looking eastwards, the area stretches along its earlier planned course from the direction of Rybaki Górne Street separating the Imperial Shipyard estate in the north and the gasworks in the south towards Stępkarska Street where the planned road turns into a tunnel and runs under the bed of the Motława River heading towards the exit in the Polish Hook area where it merges with Siennicka Street at Głęboka Street.

During the workshops the area of the consulted land was verified. In the discussions, it was pointed to the need to broaden the area under consideration so as to include a fragment of ks. Popiełuszki Street up to the junction with Robotnicza Street so that the solution discussed during the workshops could constitute a structural whole. In the opinion of the participants, the fact corroborated by observations of the team holding the consultation process, narrowing down the considered area to the crossing with Nowomiejska Street is artificial and omits a valuable fragment of the street between the crossings of Robotnicza and Nowomiejska Streets.

An additional bonus of the conducted workshops consists in pointing to a number of solutions which go beyond the boundaries of the study but precious in terms of shaping the transport system of the Young City as a whole.

2.3. The Course of the Consultation Process

The consultation process was made up of three meetings, including one open meeting (held on 13 June 2022) plus two workshop meetings (held on 24 June and 5 July 2022). The process was closed with a summary meeting held on 20 September 2022. The meetings were staged in the assembly hall of High School No. 1 in Gdańsk. The participants included representatives of the city authorities and key stakeholders in the transformations.

During the open meeting, presented were the city planning assumptions and the current planning conditions forming the baseline for discussion on the future shape, function, and surroundings of Nowa Wałowa Street. The workshop meetings, on the other hand, were devoted to e.g. talks on developing the street space and its vicinities, as well as issues connected with the preferred detailed transport solutions, the aesthetic character of the street, and the solutions in terms of the selected materials.

The workshop outcomes were consulted on an on-going basis with an expert in designing road systems, Jan Kosiedowski, and an expert in designing streets and public spaces, Bartosz Zimny.

The results of the consultation process were subject to discussion at the meeting of the Young City and Polish Hook Stakeholder Council held on 21 September 2022.

2.4. Participants in the Consultation Process

The conclusions drawn during the workshops result from discussion between representatives of numerous stakeholder groups, including:

- the residents,
- representatives of district councils,
- representatives of the local non-governmental organisations,
- artists associated with the Gdańsk Shipyard,
- representatives of the local authorities,
- representatives of the city units related to the shaping of the city's spatial and transport policy,
- experts in designing road layouts and public space.

Involvement of such a broad representation of various social circles made it possible to use the consultation process to see the problems involved in pursuing the investment project from many perspectives and go beyond the issues narrowed down to the technical transport solutions only. This is significant considering the rank of the street and the need to shape attractive public space in the surroundings of Nowa Wałowa Street.

Alongside issues related to motor traffic, the participants in the workshops noted the prior need in the design development process to give the street presentable air plus the need to serve all of the following: users of public transport, pedestrians, and cyclists. Since representatives of many stakeholder groups were engaged, a team of experts included, the conclusions formulated during the workshops should be deemed credible, and as such be treated as an important reference in the process of designing the layout of Nowa Wałowa Street.



Fig. 3. A workshop meeting with the residents. Photo by: the City Initiative Association.

3 Workshop Conclusions and Project Recommendations

3.1. The Double Roadway Design Variant

One of the most important issues during the consultations came down to discussing and selecting one of two design variants of stage II into the construction of Nowa Wałowa Street.

The following variants were considered:

1. A single roadway variant

This was the variant where stage I in the construction of Nowa Wałowa Street takes the form of a two-way road running along one side of the axis of the target road system and assumes that the tramway is built in the axis of the expected final street layout. The variant leaves a sizeable belt of land offering road reserve unused and enables its potential development; at the same time, however, it hinders communication links between both sides of the planned street.



Fig 4. The single road variant. Developed by: the City Initiative Association using Streetmix.

2. A two-road variant

In this variant, stage I into the construction of Nowa Wałowa Street takes the form of two one-way roads running on both sides of the axis of the final road system and assumes that

the tramline will run along the axis of the final street layout (similar as in variant I). The option involves the construction of two roadways on both sides of the trackway, which leaves less free space for development. On the other hand, the solution enables using the street-adjacent space as the belt which can be developed with various kinds of elements complementary in nature. For instance, it is possible to introduce additional temporary greenery (in the form of pots sunk into the ground), lawns, parklets, recreation spots, tea gardens, bike parkings, parallel parking bays for cars, scooter parking spaces, decorative street architecture, benches, and right turn lanes.



Rys 5. The double-road variant. Developed by: the City Initiative Association using Streetmix.

3.2. The Discussion, and the Arguments for the Selection of the Double-Road Variant

Having discussed the arguments favouring each of the variants, the participants in the workshops pointed to the double road variant as the most advantageous. They argued that the neighbourhood of the planned street is fairly rich in public space with an inherent elegance feature. The participants emphasised that the said area does not call for enhancement with public space, instead, it rather needs comprehensive and coherent development of the already existing space. Therefore, they are of the view that it is more advantageous to make use of the street space on both sides of the tram axis and design it in the form of an urban alley with abundantly equipped street-adjacent zones.

3.3. Composition of the street

An equally important argument favouring the double road variant is the fact that it offers an opportunity to create a street clear in its composition and constant in width. The participants in the workshops referred to the already constructed stage I of Nowa Wałowa Street saying they are bothered by both its width and character. As the participants in the workshops see it, the street form, as it is today, resembles an express road rather than a city street. Transverse passages are spaced scarcely, the land designated for vehicles dominates over the space available to pedestrians and cyclists. In addition, the meandering street route disturbs the clarity of the

composition and causes that the land which could be dedicated to public functions is lost to the vehicle traffic. **That is why, adoption of the relatively constant street width and subjection of the road route to the city planning composition of the surroundings instead of the drivers' convenience were found to be an important guideline in designing the future street.** It is recommended to resign from left turn lanes altogether and to 'blend' right turn lanes off the street with the belt of land reserved for the potential second traffic lane.

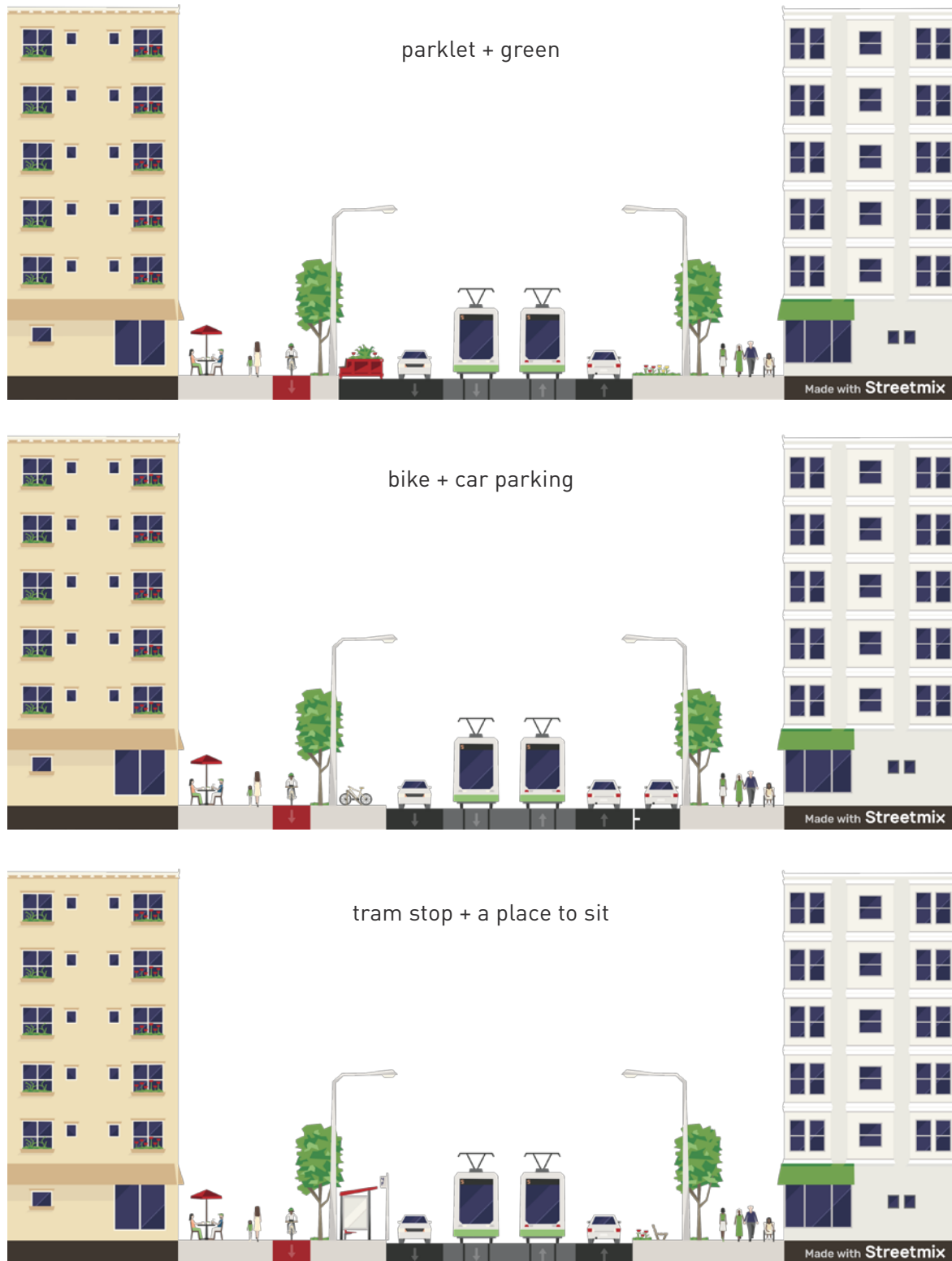


Fig. 6. Alternative forms of utilising the technical belt. Developed by: the City Initiative Association using Streetmix.



Fig. 7. Entry into Nowa Wałowa Street (ks. Popiełuszki Street) from north-west. Photo by. Stocznia Centrum Gdańsk.

4 **Conclusions synthesised in the graphic format**

The comments accumulated during the workshops were grouped in 10 topical categories. Each category is presented synthetically using graphics and described, with the main conclusions and postulates of the workshop participants presented.

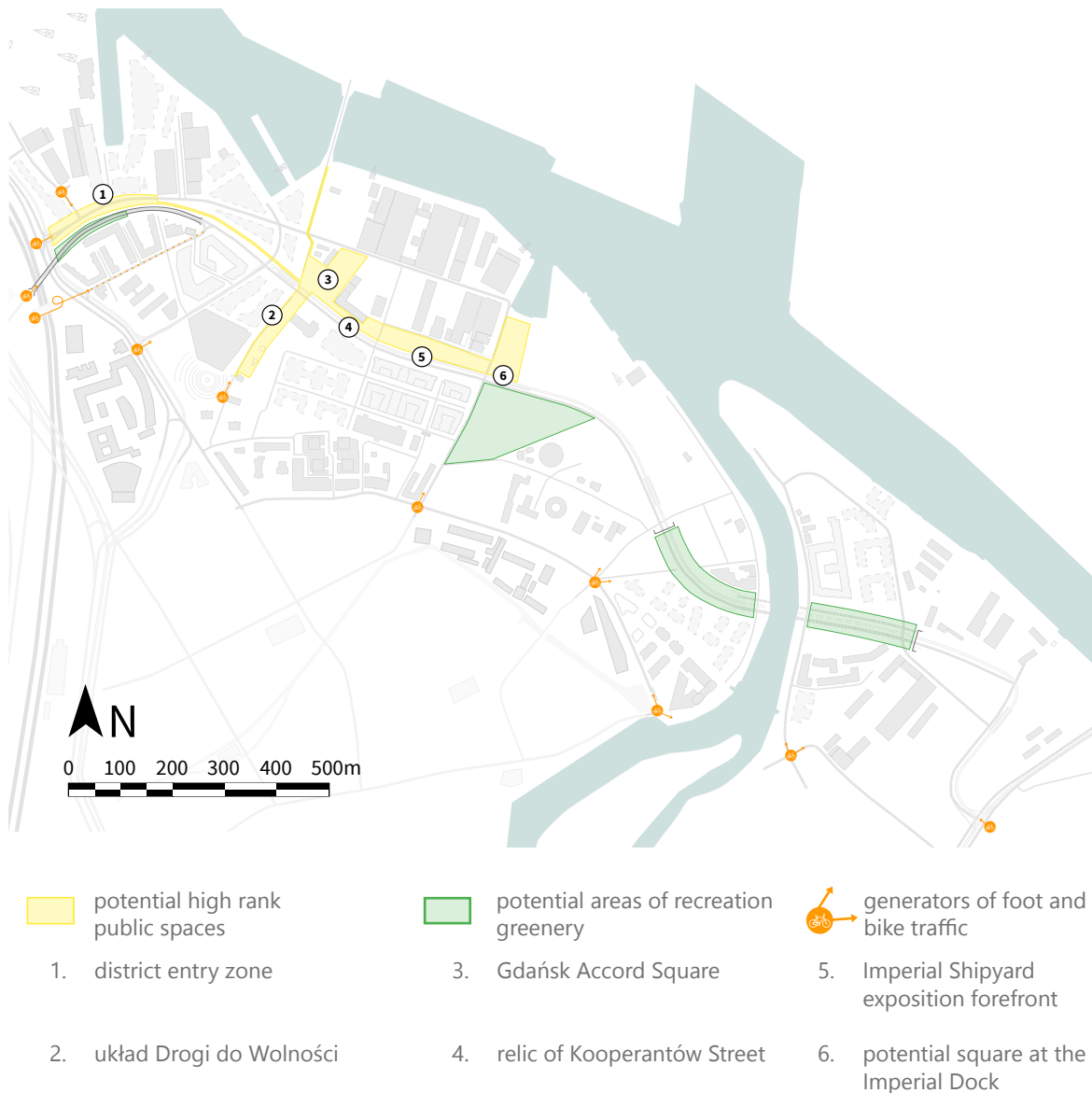
The following categories were identified:

- 1. The external context determining the character of the street,**
- 2. The functional zones (dictated by the context),**
- 3. The preferred vehicle traffic layout,**
- 4. The preferred tram traffic layout,**
- 5. The preferred bike traffic layout,**
- 6. The preferred pedestrian traffic layout,**
- 7. The preferred development of the street-facing zone and foot traffic space,**
- 8. The expectations with respect to the composition of the street lining greenery,**
- 9. The postulated complementary solutions,**
- 10. A synthetic presentation of the preferred transport solutions.**

4.1. The external context determining the character of the street

In the consultation process, the participants identified three factors which, as they see it, will determine the character of the street and which should be taken into account at the project design phase. These are: high rank public spaces adjacent to the planned street, the undeveloped land with an inherent recreation potential (where the previous plans reserved it for the erection of a school), and vital generators of foot and bike traffic.

An analysis of the context of the development site reveals that the Young City district which will be crossed by Nowa Wałowa Street in the future will be a new downtown district of varied and multifunctional development in the future. Although specific dimensions or other execution details of the buildings to be are not yet fully known and will depend on a number of factors, one should assume that the buildings will form either a frontage or compact building complexes following the imposed building lines. The adopted assumption is consistent with the concepts developed for the discussed area in the Gdańsk City Street Standard.

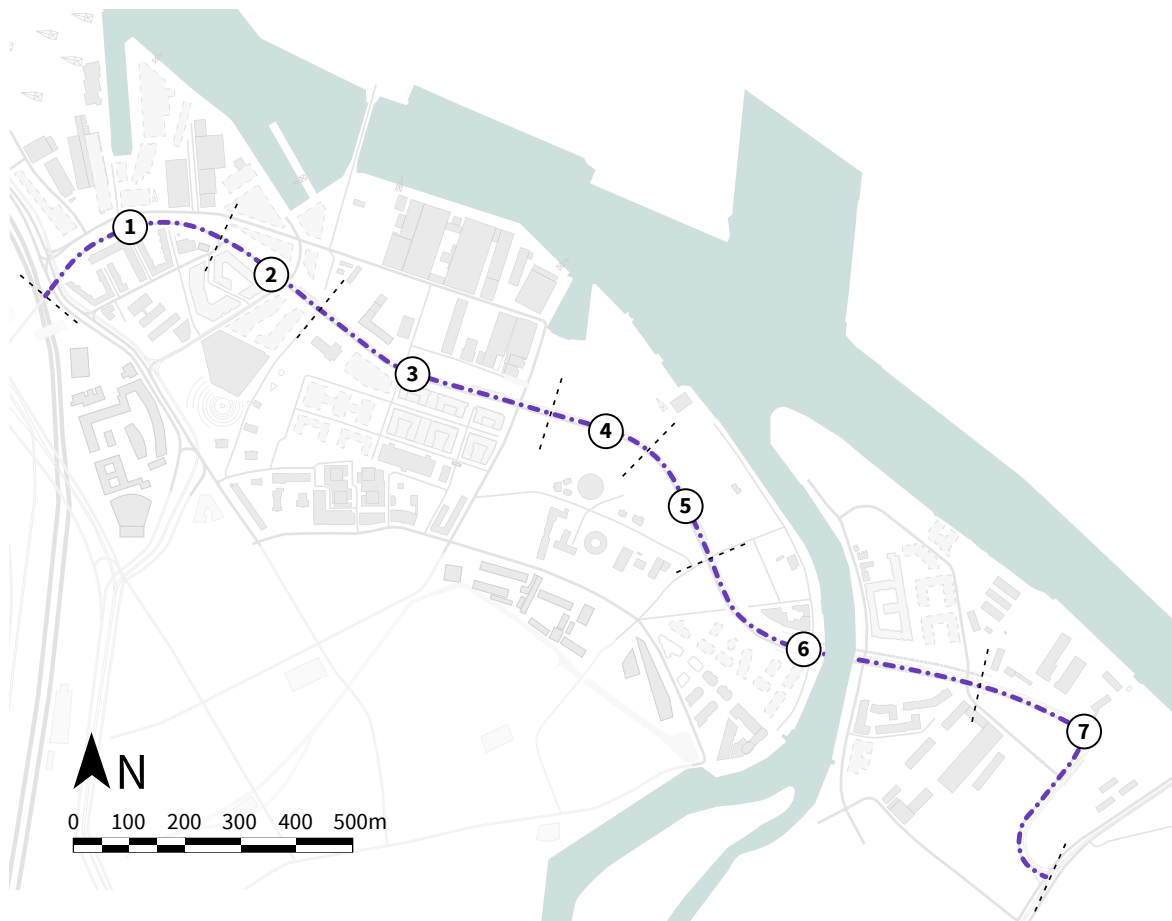


Map No. 2. The external context determining the character of the street. Developed by: the City Initiative Association, 2022.

4.2. The functional zones

The consultation process yielded definitions of 7 zones differing in character. There are:

1. The overpass zone stretching as of Brama Oliwska.
2. The multifunctional urban zone with public services on the ground floor level, on both sides of the street.
3. The presentable zone neighbouring on historic buildings of high rank, especially on the northern side.
4. The greenery zone neighbouring on recreational land in the south.
5. The urban sprawl zone multifunctional in character, with public services on the ground floor level, on both sides of the street.
6. The underground tunnel zone.
7. The presentable zone which will play the role of the Young City entry zone from the east in the future.



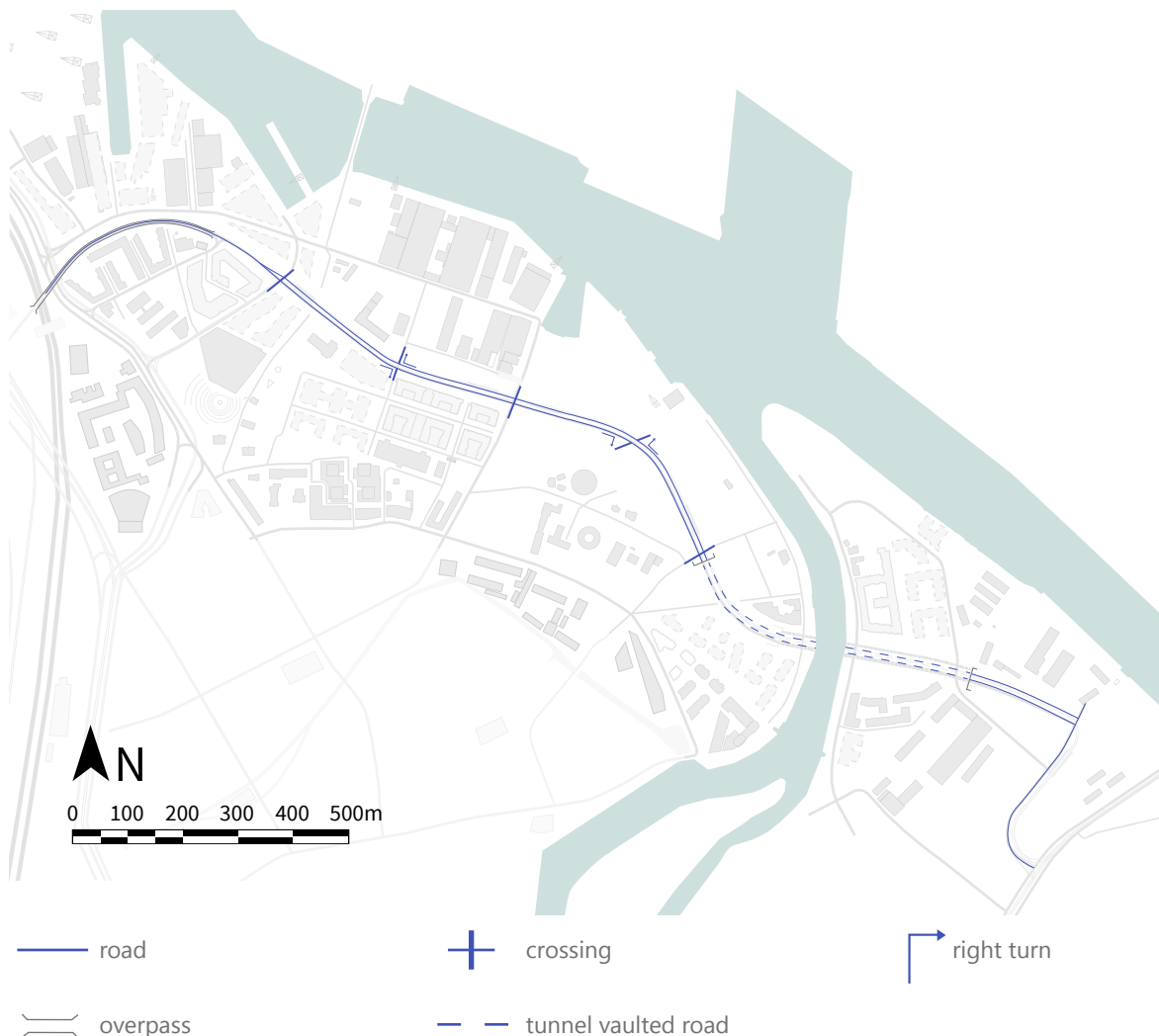
Map No. 3. The functional zones. Developed by: the City Initiative Association, 2022.

4.3. The preferred vehicle traffic layout

In the consultation process, the double road variant was selected as the most optimal for stage I of the planned Nowa Wałowa Street. The layout is dictated by the need to utilise the land reserve belt to serve the surrounding buildings. The drawing presents details of the proposed solution, including the postulated transverse cuts. The cuts in the form of junctions were proposed at Nowomiejska Street, Rybaki Górne Street, and the street planned to continue the route of Nowa Stępkarska Street.

The drawing also presents incomplete crossings – entries available to drivers only through right turn lanes, or the so-called gate entries. These are internal entries to the Euro Styl DOKI Building Complex, to the Imperial Shipyard expanse (between the Road to Freedom and Rybaki Górne Street), and entries along the recreated street running along the border of the previous Gasworks estate and the Imperial Shipyard.

An important indication for the designing of the road layout comes from the postulates of keeping the relatively constant width of the road system, resigning from left turn lanes which would disturb the geometry of the layout, and giving priority to the planning composition of the street.

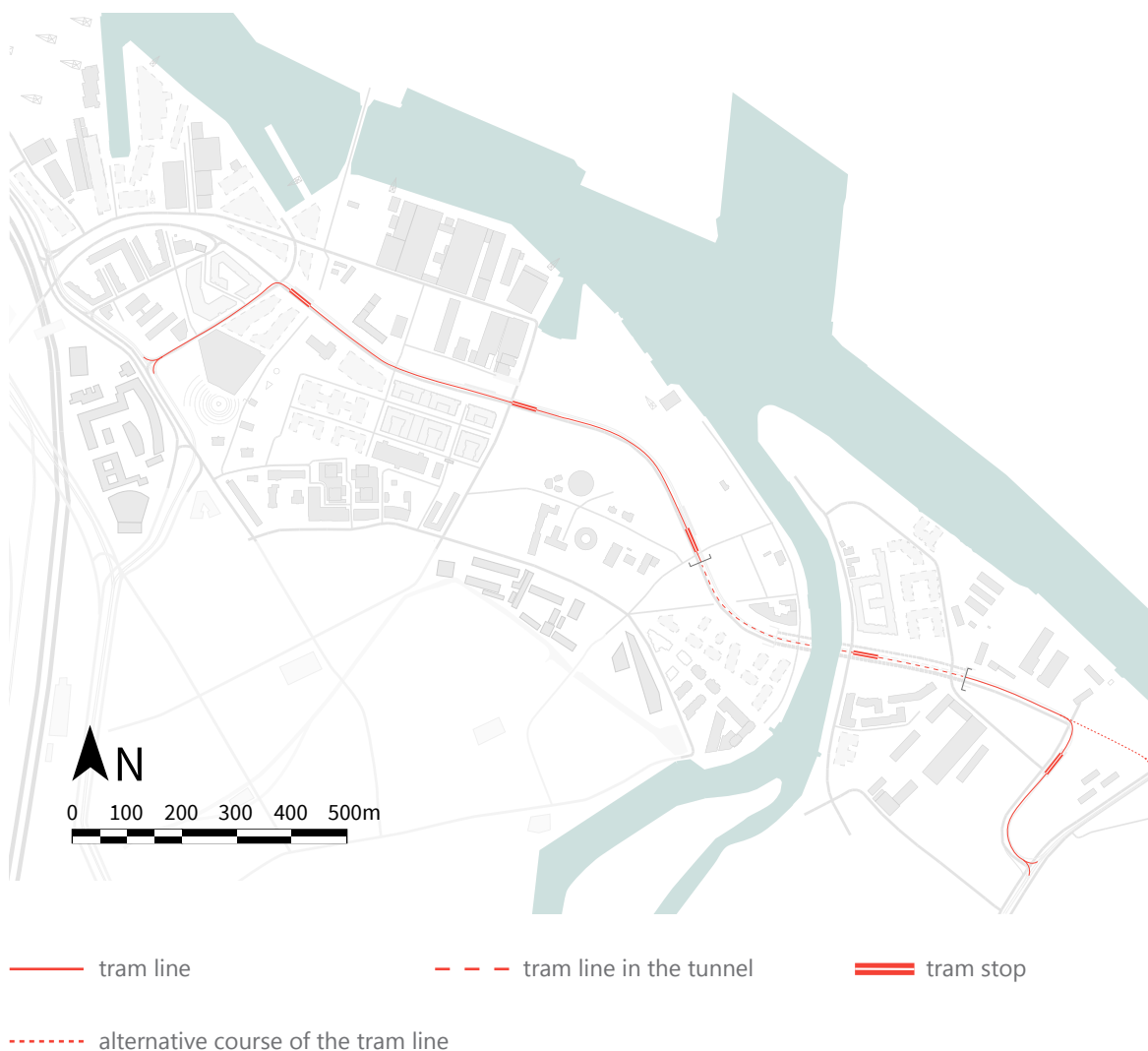


4.4. The preferred tram traffic layout

The participants of the consultation process postulated that tram stops be arranged symmetrically at the locations most convenient in terms of access to public spaces. A major postulate concerns the location of a tram stop in the tunnel under the Motława River bed so as to provide the passengers with access to the Polish Hook embankment, and the public space formed on the slab vaulting the tunnel. The preferred layout of tram traffic with the suggested locations of tram stops are presented on the drawing.

During the workshops the need was also noted to design tram stop shelters of high aesthetic value as they form an integral element of the public space. The participants suggested that an architectural competition be held on the design of tram stops.

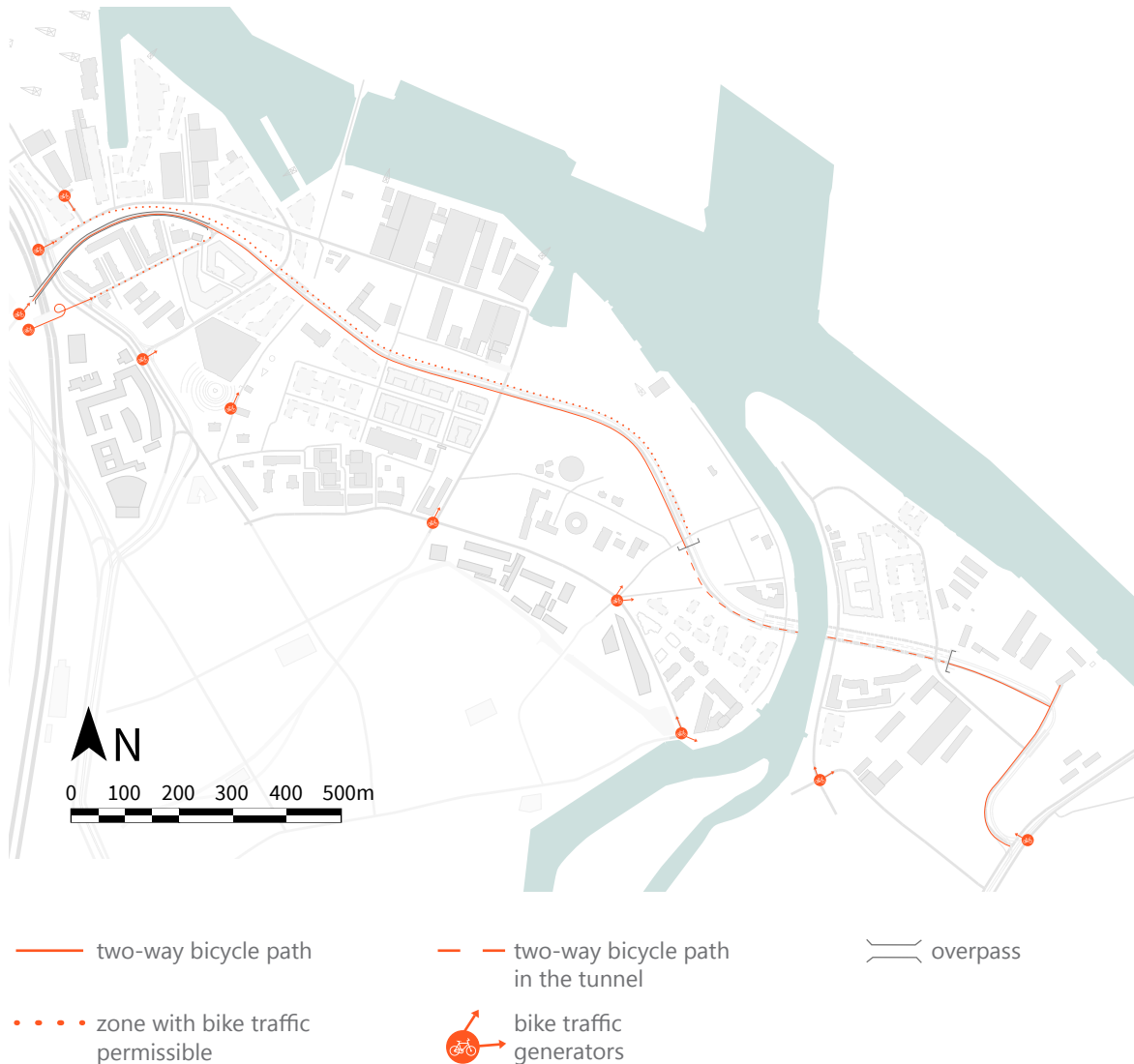
The complementary guideline ensuing from the tram transport system development plans consists in leaving the option of extending the tram line towards Stara Stocznia Street open.



Map No. 5. The preferred tram traffic layout. Developed by: the City Initiative Association, 2022.

4.5. The preferred bike traffic layout

Defined too in the consultation meetings was the preferred bike traffic layout, as presented on the drawing. The participants in the workshops pointed to the need of having a two-way bicycle path stretch over the whole length of the planned Nowa Wałowa Street, from the crossing with Robotnicza Street and up to Siennicka Street. Selected as the most advantageous was the bicycle path variant running on the southern side of the planned street. This is dictated by the ease of joining in the traffic from the side which is the prime generator of the traffic, i.e. from the side of the historic city centre. In view of the rank and the public character of the space, it is recommended to integrate the bicycle path with its surroundings in a way which will impose limitation of the bikers' travelling speed along the section of the representational zone. It is noted that bike traffic may be allowed on the northern side of the street in a shared zone along the section from the street following the border of the Imperial Shipyard and the former Gasworks.

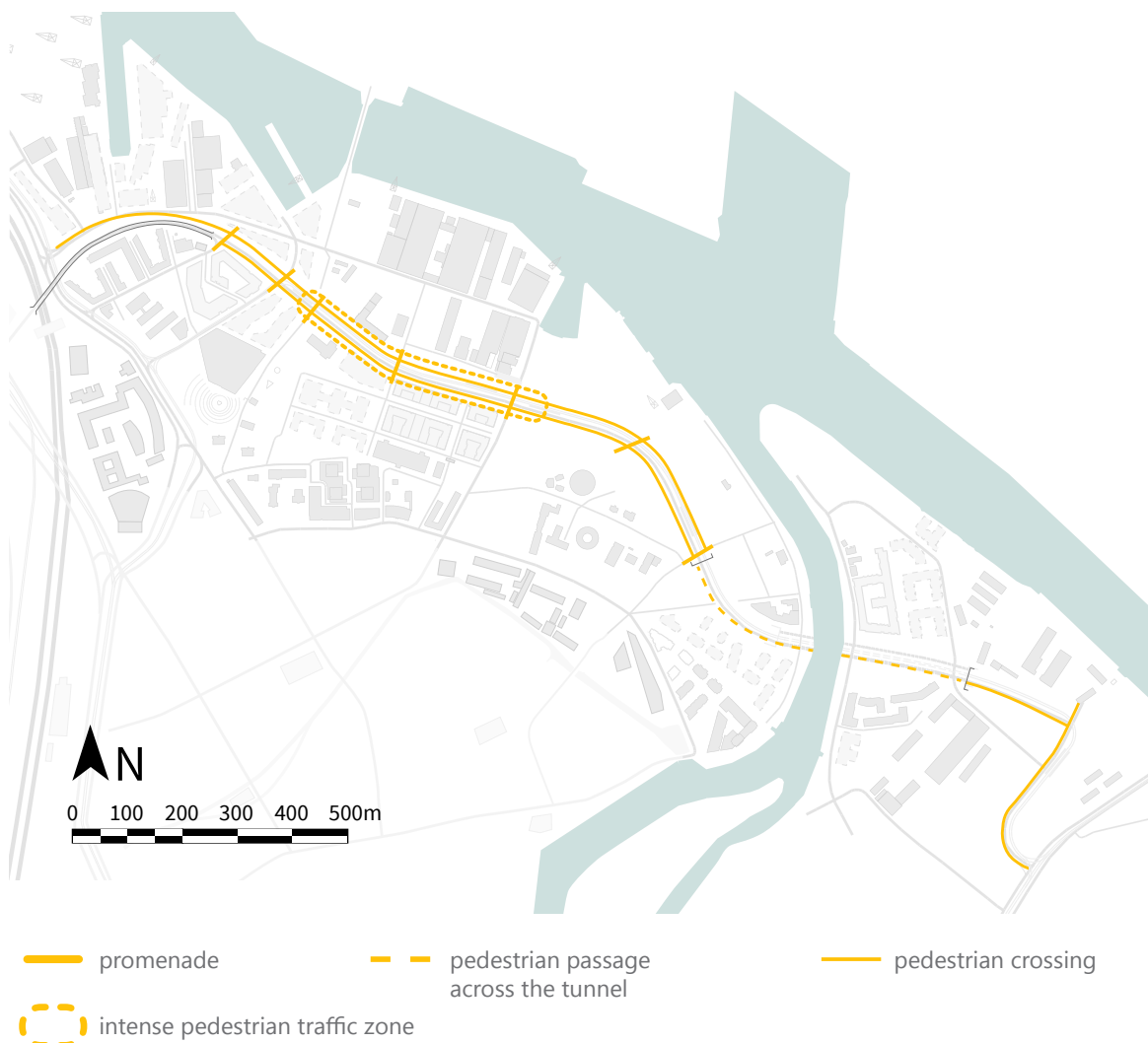


Map No. 6. The preferred bike traffic layout. Developed by: the City Initiative Association, 2022

4.6. The preferred pedestrian traffic layout

Another major issue discussed during the workshops came down to identifying the most important foot links between the planned street and its surroundings. The drawing presents the prime links identified by the participants in the process, including two pedestrian ways of particular significance for their importance in the shaping of public spaces in the Young City, leading to the Road to Freedom (previously Doki Street) and to Rybaki Górne Street. Marked too, are the other transverse foot links of lesser significance for the image of the district but requiring incorporation in the project design.

During the workshops, it was explicitly stressed that the section of the planned street between the Road to Freedom and Rybaki Górne Street should be treated as public space characterized by intense foot traffic. It is postulated that the solutions applied in this street fragment should suit the character and rank of the surroundings, and that a mental feeling of unity of both sides of the street and its integration in the public space should be created.



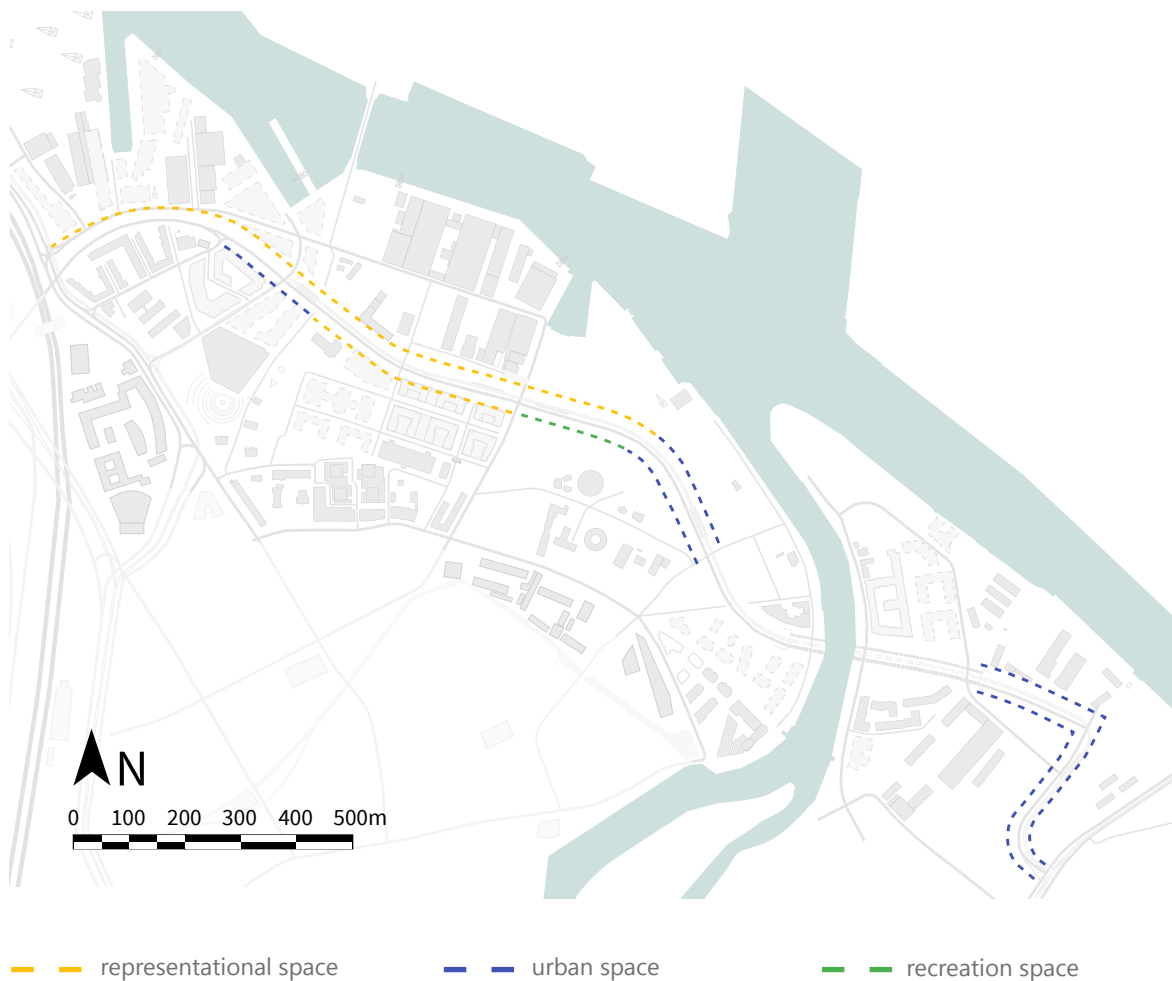
Map No. 7. The preferred pedestrian traffic layout. Developed by: the City Initiative Association, 2022.

4.7. The preferred development of the street-facing zone and pedestrian traffic space

The workshops resulted in identifying three types of development of the street-facing space, depending on the context and rank of the surroundings. The indicated development stems from the analysis of future use of the land, conducted during the workshops.

The drawing below presents the three ways of developing public spaces, each of specific/different characteristics:

- Representational space (yellow) where no car parking is allowed, and bikes and scooters can be parked to a limited extent. The space should be abundantly fitted with elements of street architecture and other elements adding opulence to the public space, e.g. works of art., drinking fountains, small greens.
- Service space (blue) where car parking is allowed (parallel parking), as well as parking bicycles and scooters in proportion balanced with the elements of street architecture.
- Recreation space (green) where no car parking is allowed, but bicycles and scooters can be parked and elements of park recreation are introduced into the development.

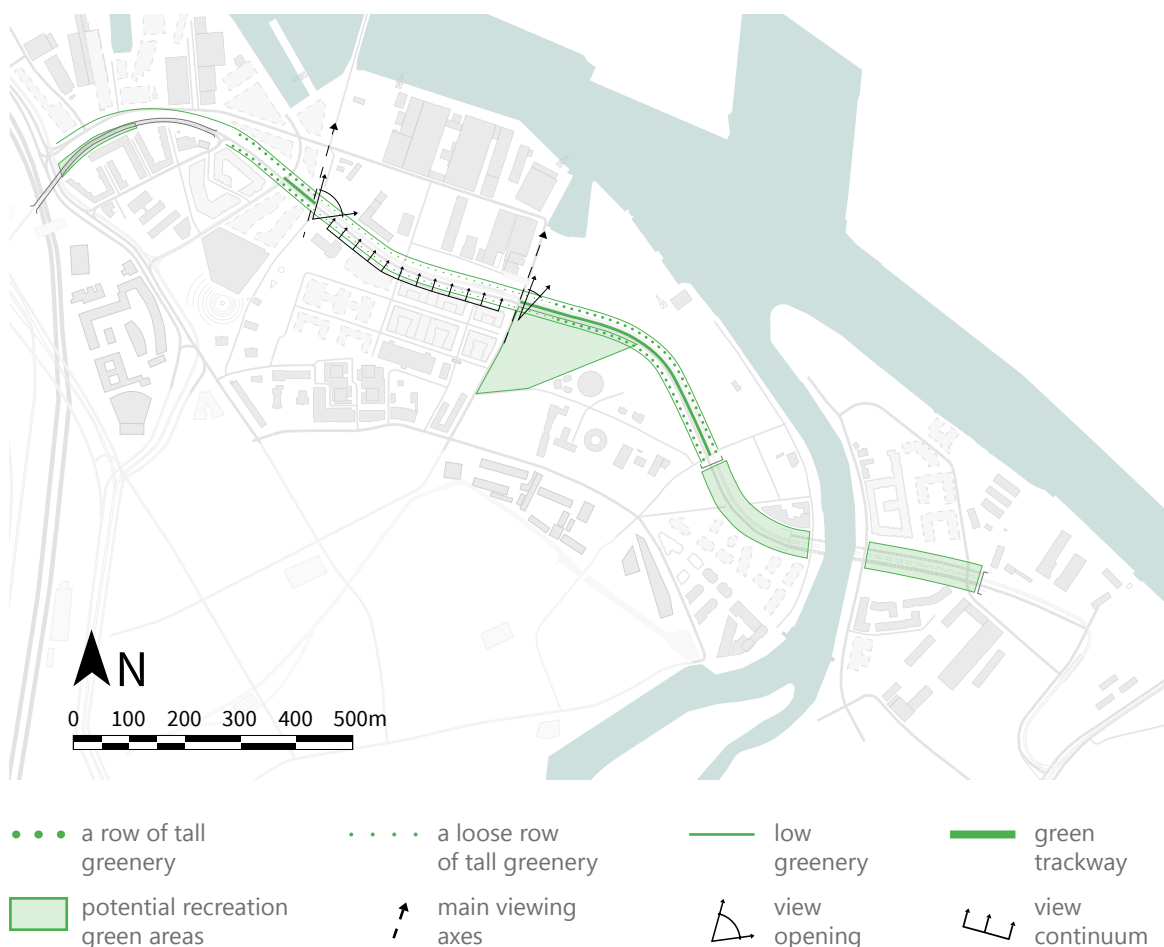


Map No. 8. The preferred development of the street-facing zone and public spaces. Developed by: the City Initiative Association, 2022.

4.8. The expectations with respect to the composition of the street lining greenery

Marked on the drawing below are the main determinants of designing the greenery. Their rationale consists in the need to save the views of the historic buildings. There are two viewing axes towards the embankment, and the continuum of the view along the buildings of the Imperial Shipyard. In connection with the need to save the views, it is postulated to plant tall greenery loosely along the section, aligned with the neighbouring buildings. As for the remaining land, it is recommended to introduce tall greenery in the form of dense rows of trees. It is further postulated to locate low greenery along the entire length of the street. This, however, does not mean the creation of a continuous lawn belt separating the roads from the pavement all along, but application of solutions in the form suited to the requirements of the surroundings (e.g. green isles or retention basins). To complement greenery compositions, it is proposed to introduce green trackway along the sections marked on the drawing.

Noteworthy, introduction of high quality greenery in varied forms on both sides of the planned street was found a prerequisite of executing stage II of the Nowa Wałowa Street project. This is a response to the challenges posed by the climatic change and its consequences for cities. Meanwhile, the need was also noted to reach for NBS solutions (*Nature Base Solutions*) when designing the street, to name e.g. gardens and retention basins, water pre-treating greens, and others, as the needs dictate.



Map No. 9. The expectations with respect to the composition of the greenery. Developed by: the City Initiative Association, 2022.

4.9. The postulated complementary solutions

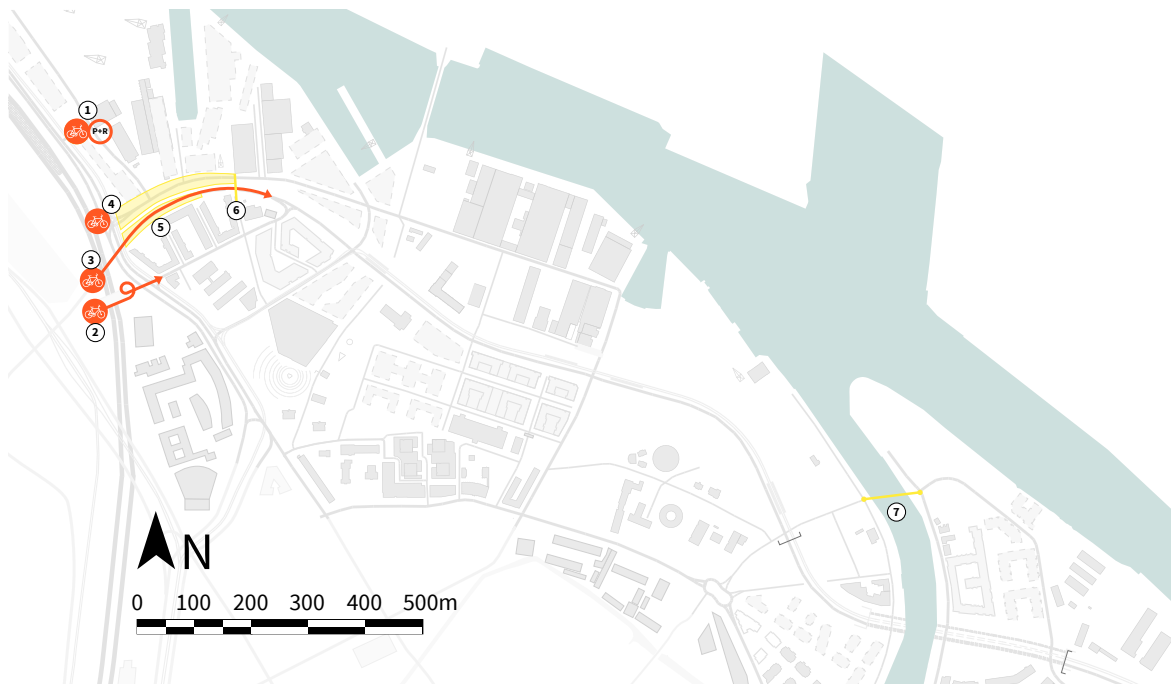
During the workshops, seven solutions were suggested, all going beyond the planned investment but, if implemented, they would benefit the transport system of the Young City and, combined with the investment, introduce the synergy effect.

Solutions 1–3 concern an optimal conversion of Nowa Wałowa Street with the city's bicycle path system along Aleja Zwycięstwa Street. They also assume the location of a parking site of the park-and-ride type for bicycles at the SKM Stocznia train stop.

Solutions 4 and 5 concern the development of the now degraded but intensively used space of the exit of Narzędziowców Street into Jana z Kolna Street. It is postulated to create a public space at the location, to form a viewing forefront for the buildings of the Schichau Shipyard, and to develop the land under the overpass in ks. Popiełuszki Street to serve the residents.

Solution number 6 is a supplementary element. The idea is to create a footbridge referring to shipyard constructions in form. The footbridge may at the same time become a symbolic gateway to the Young City.

Solution number 7 is a footbridge linking the Young City to the Polish Hook at the extension of the future Nowa Stępkarska Street planned.

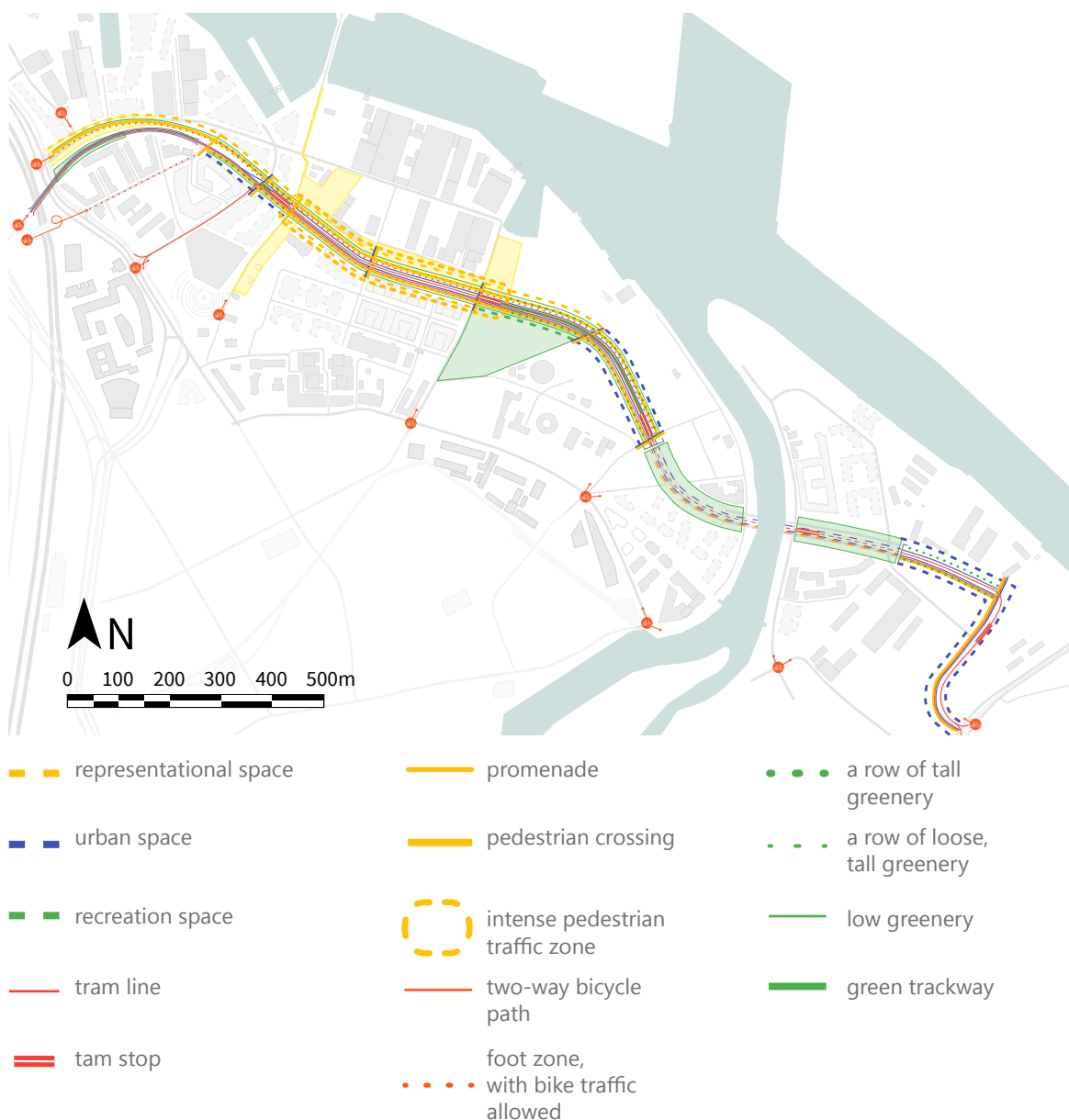


Map No. 10. The postulated complementary solutions. Developed by: the City Initiative Association, 2022.

4.10. A synthetic presentation of the preferred transport solutions

Below is a synthetic presentation of the conclusions formulated during the workshops, complemented with a legend. The map compiles the guidelines for the new investment and the postulated complementary solutions. The listed issues are depicted on topical maps.

One should remember that although the suggested solutions go beyond the planned investment connected with the construction of stage two of Nowa Wałowa Street, it seems reasonable to take them into account in the process of planning the road system so as to enable their potential implementation in the future.



Map No. 11. A synthetic presentation of the preferred transport solutions. Developed by: the City Initiative Association, 2022.



Fig. 8. A workshop meeting with the residents. Photo by. City Architect's Office.

5 Summary

This study synthesizes the conclusions drawn from the conducted consultation process participated in by representatives of a broad group of stakeholders, including institutions and experts in the field. The fact allows to claim that the postulates presented in the report can be treated as a major point in the discussion on the target form of Nowa Wałowa Street, and the preliminary guidelines for the team developing the project documentation.

Saying that, one should note that the presented conclusions do not add up to the design. They require feasibility analyses from the perspectives of a number of trades, as well as consultations and arrangements with the relevant stakeholders in the investment process, including the Pomeranian Heritage Preservation Officer.

Considering the rank of the investment discussed in the report, it is recommendable to consult the developed guidelines with the respective authorities as early as at the stage of developing the conceptual design. This will enable engaging their representatives in the design process at the earliest project stage, which will certainly improve its quality and make it possible to avoid potential complications.

The most important aspects requiring analyses and consultations identified in the consultation process are:

- consultations on the location of the tall greenery and elements of street architecture in between the borderlines of the road, in the context of potential designation of the land to serve as a fire road
- consultations on the landscape requirements in connection with the location of the greenery, tall greenery included, with the Pomeranian Heritage Preservation Officer.



Fig. 9 The crossing of Nowa Wałowa and Nowomiejska Streets. Photo by. Stocznia Centrum Gdańsk.

6 Expert Analyses

6.1. Nowa Wałowa. Analysis of the road system of the current ks. Popiełuszki Street and its recommended variant in the context of the planned future development of the Young City.

Study by: Bartosz Zimny, MSc Architect, Łódź 26/08/2022.

1. The context of the study.

This study discusses two street cross-section variants considered in the context of the construction of Nowa Wałowa Street and the impact each variant may have on functionality of the street once the new building development is in place. The information below is provided on the assumption that the requirement of the local spatial development plan which stipulates that Nowa Wałowa Street is to be fitted with a double, two-lane roadway will be lifted or modified so as to give the local authorities more freedom in adjusting the parameters of the road system to the adopted assumptions (including the outcome of the consultation process).

In the preparation works preceding the drawing of design guidelines for the said street, the two variants of the street cross-section, differing in the location of the tramway with respect to the roadway, were subject to discussion. Both variants, except for the major difference in the mutual relation of the tramway and roadway, envisage analogous elements of the development, to name e.g. the pavements, bicycle paths, exits to individual estates, tall and low green, etc.

2. The tram infrastructure and its impact on the other elements of the right of way.

The tram is a means of public transport where a rail vehicle travels on rails drawing energy from external power devices through tractions and other accompanying elements. What differs a tram from a train or subway is that this type of transport is subject to the road traffic regulations and trams can travel alongside other participants in the traffic depending on the local conditions and needs. The fact is important since the same regulations apply to all kinds of vehicles, bicycles, pedestrians, and the tram. This implies that potentially a part of the right of way infrastructure serving the tram traffic could be used by other traffic participants and vice versa. Adoption of the assumptions as to how the tram traffic is to fit in a specific space carries certain consequences which may contribute to potential problems with future use of the street on the one hand

(e.g. encountered by certain user groups), or to its improved “accessibility”, i.e. ensured ease of using it by all traffic participants on the other hand. The above should not be linked to any „priority” given to any specific user group, e.g. privileged car traffic narrows down the offer left for trams, pedestrians, or cyclists. The issue should be viewed as certain ergonomics in the arrangement of individual elements in the street cross-section so that the specificity of any given means of transport is not too invasive for other aspects resulting from the daily use of the street.

The tram, as a means of transport (unlike any other traffic participant), is strictly dependent on the infrastructure dedicated to it. In this study, one can assume that there will be three main factors influencing the way that the tram will intervene in the street space. These will be the trackway, power supply in the form of power supply posts and the traction itself, and tram stops. Because of its specificity, the tram travels in a linear motion over long distances – it cannot manoeuvre as other motor vehicles or pedestrians can. This aspect is linked to the way the tram infrastructure can be placed in the right of way since as a rule, it will always be an axial element forcing other elements of the street to be aligned to it, not vice versa. By analogy, the accompanying infrastructure such as the traction or tram stops will be subject to certain rules ensuing from the regulations, and this will carry an impact on other elements of the development. The issues tackled in point 2 will be discussed in the broader context of the Young City development plans.

3. The planned elements of development, and the street use variants in the context of Nowa Wałowa Street.

The materials concerning the plans of developing the space abutting directly on the right of way assume that the main section of Nowa Wałowa Street, i.e. from the vicinities of Robotnicza/Nowomiejska Streets and up to Rybaki Górne Street, will be developed into a continuum of public space where, urban development combining the housing and service functions, or services and culture alone will dominate depending on the zone. The whole development will form a continuum of spaces where buildings of varied designations and functions will abut directly on the right of way. That particular section determines the street cross-section to be continued westwards, up to the tunnel and beyond.

When selecting the target variant, one should consider whether the designed Nowa Wałowa Street will play any functions other than merely that of transit, and what its role will be in such aspects as:

- fire-fighting,
- supplies delivered to service outlets (couriers, taxis),
- access to parking spaces,
- location of the tall green in the context of achieving the effect of rows and at the same time satisfying the fire-fighting and prevention requirements of the planned and existing building development,
- accessibility to bicycle traffic,
- the possibility that pedestrians and cyclists might have to cross the street at places other than crossings,
- location of tram stops,
- the possibility for cars to turn around without generating excessive traffic (it frequently happens that with a tram present in a street turning back is impossible, and this necessitates detours so that the drivers can travel back to where they started from).

Plus:

- considering whether it is possible to resign from traffic lights,
- considering the option of combining multiple types of infrastructure such as e.g. tram traction and street lighting so as to reduce any redundant elements in the public space,
- considering how the above factors link directly to the positioning of the tramway in the cross-section of the street.

4. Analysis of variant I – the tramway located in the centre of the street.

In the variant where the trackway is located in the centre of the right of way, one factor captures attention: the arrangement is axially symmetrical, which means that both one, and the other side of the road have the same solutions in their cross-section – i.e. the arrangement of such elements as roads, parking spaces, greens with rows of trees, will be of similar proportion on each side of the axis. In the case of the arrangement where the tram travels in the centre of the street one can draw attention to the following aspects of the layout:

Advantageous aspects:

- The roads of opposite driving directions serve the buildings located directly at them. There is no problem of a barrier a tramway would form.
- Parking sites can be located directly in between the road and the pavements, without the need to build additional walkways to serve parking sites only (which would be the case, if the sites were to be located at the trackway).
- The scope of additional infrastructure protecting the pedestrians, such as fencing off the tramway, is substantially reduced.



Example 1. Piotrkowska Street in Łódź. Shared roadway surface. The trackway is basically delineated with horizontal road marks except for some sites such as gate exits or pedestrian crossings. The solution makes it possible to avoid the problem of cars being blocked by a parking vehicle and unable to overtake it. Photo by Bartosz Zimny.

- The number of potential collisions spots, if exits from estates to the road are built, is reduced.
- There is the potential of making use of „shared“ infrastructure, e.g. traction posts and street lighting. Symmetrical layout enables obtaining optimal proportion between the number of posts and the arrangement of the lighting. Pertaining to it too is the fact that Nowa Wałowa Street will largely run straight, which reduces the number of posts substantially.
- No collision arises when service by special purpose vehicles is concerned, to name e.g. fire engines, ambulances, or garbage trucks (both roads are equally accessible).
- Accessibility to vehicles carrying supplies or mail, etc. is assured.
- The central lane occupied by the tramway can be used as an additional belt of greenery, trees included, which, when combined with rows of trees on the pavement sides can contribute to a positive reception of the street.



Example 2. Piotrkowska Street in Łódź. The photograph shows the vehicle roadway raised to the level of the tramway deck. The stop itself is located on the pavement. It should be noted that the initially installed lights which “blocked” vehicle entry to the raised roadway (switched on automatically by the approaching tram) have been turned off - general principles. The general narrowing of the roadway eliminates the conflict between the drivers and the passengers getting on or off the tram. It is also more convenient for the passengers, the disabled included, to get to the stop platform from the pavement level. Photo by Bartosz Zimny.

The factors which require additional attention, should this solution be selected (but which should not be treated as its disadvantages) include:

- tram stop location:
 - the stops located at junctions additionally push and shove the tram traffic zone there, which may further expand the area occupied by the junction, if combined with additional left/right turn lanes,
 - Traffic lights. The trackway in the central axis of the roadway should be analysed in terms of

installing traffic lights or resigning from any traffic lights at all. Since the solution can affect the possibility of cars' taking turns or reversing, it should be subject to an additional analysis in terms of the traffic,

- Trackway type. A green trackway affects the possibility of taking an early U-turn and forces the driver exiting an estate to go as far as the nearest junction. The trackway embedded in the road paving (e.g. levelled with the road surface) makes it possible to spread the traffic between individual junctions more evenly, thus reducing the number of vehicles.

Building a shared roadway used by both trams and vehicles offers a solution which tends to effectively reduce the number of vehicles at junctions and improves accessibility to the benefit of basically all (motorised) traffic participants; however, the trackway located in the roadway's central axis makes it possible to take a U-turn or left turn only when e.g. entering an estate, with the roadway itself cut off. Hence, the tram has a sort of its own, separate lane which in exceptional cases may be used by special vehicles or cars leaving or entering an estate. An interesting advantage of the solution is that tram stops may be located at a certain distance from the tracks themselves, on the pavements at the edge of the roadway. In this case, the role of the stop platform is played by the raised roadway (the so-called Vienna-type stop). In such a variant of the stop location, arranging stops outside junctions poses no problem and the stop itself becomes a kind of an element that slows down the traffic.

5. Analysis of variant II – trackway located eccentrically with respect to the road axis.

In the variant envisaging the eccentric location of the trackway, on one of the roadsides, it must be remembered that the traffic service available on the side where the trackway will run will be different from that on the side devoid of the tracks. The solution is frequently used wherever the development along one side of the road is sparse or non-existent. The discussed location of the tracks carries the following advantages and disadvantages:

Advantages:

- If the trackway is of the green type, it can be linked to the green strip along the pavements, which will optically enlarge the area occupied by the greenery,
- tram stops on the pavement side may be arranged on the existing pavements,
- such arrangement makes it possible to avoid installing traffic lights.

Disadvantages (when building development is of similar density on both sides of the road):

- more collisions at vehicle exits from estates,
- locating parking spaces between the roadway and the trackway may be a challenge (it might be required to build an additional pavement which increases the cost and the demand for land);
- impaired access for rescue and technical services,
- impaired access for delivery vehicles, courier services, etc.,
- asymmetry of the solution may carry the need to increase the number of elements of the accompanying infrastructure, such as traction and lighting poles.

6. Other elements of the road layout which impact the functionality of the designed right of way in the context of Nowa Wałowa Street.

Bicycle Paths

In accordance with the presented development plans produced for this part of Gdańsk and the location of the existing and planned buildings, the traffic generators (as well as places which can be deemed 'destinations') will be arranged on both sides of the road. In the context of high bicycle traffic in Gdańsk it is difficult to decide which sides is prior in terms of the demand for a dedicated bicycle path.

Distribution of trees in the context of fire services

For the time being, only fragments of the development (the existing buildings) and the related demand for fire protection are known. In the case of tall buildings serving the combined residential and service function, it may prove necessary to build a road of the parameters and ensuring the distances which will satisfy the requirements of the Regulation on securing escape routes. In such a scenario the city's interest and the options available under the regulations may be contradictory.

Servicing of the planned development of streets/internal roads other than Nowa Wałowa Street

In the context of service by special vehicles (fire engines, ambulances, garbage trucks) one should seek assistance in an analysis of whether the existing and planned buildings can be serviced from locations other than Nowa Wałowa Street.

Location of tram stops

The location of tram stops at junctions may, but need not be an optimal solution for the planned development. Apart from the implications of locating stops near junctions (e.g. in the context of traffic lights), their location might prove far from most advantageous in terms of the pedestrians' needs. Considering the planned development, a solution one might take into account consists in locating stops in stretches in between the nodes, in between junctions, but in direct vicinity of the buildings.

Pedestrian crossings in between the junctions

The location of tram stops at junctions may, but need not be an optimal solution for the planned development. Apart from the implications of locating stops near junctions (e.g. in the context of traffic lights), their location might prove far from most advantageous in terms of the pedestrians' needs. Considering the planned development, a solution one might take into account consists in locating stops in stretches in between the nodes, in between junctions, but in direct vicinity of the buildings.

Junctions and traffic lights

The solution adopted for the junctions in the context of the planned development and the location of the tramway will affect the reception of the space and its functionality. In general, it is a good solution to reduce the road layout to the necessary minimum while securing its functionality and accessibility in all directions. Traffic lights could prove a costly solution if the traffic is low and the demand for traffic lights is small. A combination of tram traffic with roundabouts could be a possible solution for Nowa Wałowa Street.

7. Recapitulation and recommendations

Although road layout is frequently treated as a secondary issue in the context of public space and the planned building development, it actually should be an equal-ranking element taken into account when creating 'new space'. The chance offered by the creation of Nowa Wałowa Street from the very scratch can pertain to the comfort of its use by all users for decades to come and enhance the aesthetic values of the site.

Having analysed the materials obtained during the consultations and the plans in possession of the City of Gdańsk for the area, it is recommended to analyse the solutions presented below:

- **The location of the trackway, stops, and the accompanying infrastructure.**

The trackway located in the centre of the right of way, with two roadways in the opposite directions. Technical lanes along the roadways providing parking space for cars, courier delivery vehicles, and elements of the infrastructure. The trackway partially green. The infrastructure aligned with the tram traffic. It is recommended to select a traction mounting method which will enable reducing the number of poles and support elements. It is recommended to integrate the traction with the street lighting. The recommended location of the traction poles (in the tree row axis) will enable concealing them in the perspective view of the street, since they are elements undesirable in terms of visual aesthetics.

- **The junctions and traffic lights.**

One should aim at limiting the number of elements of the traffic light system, if only possible and reasonable, or abandon traffic lights altogether. Building a full traffic light system in an area characterised by occasional tram traffic and buildings gradually erected in the neighbouring areas may prove an uneconomical solution assuming that the traffic could work well under the general traffic rules. Should a classic junction be built, a feasible solution could be to use the traffic light system triggered by the approaching tram and inactive at times with no tram traffic. Roundabout junctions that can be aligned with the tram traffic offer a recommendable solution to be considered. The solution would make it possible to avoid using any traffic lights, ensure the ease of making U-turns in the sections between the nodes, and reduce the demand for space to the minimum.

- **Fire escape routes, bicycle paths, pavements, and footways. Trees.**

Fire-fighting service management should be analysed in the context of the planned building development and the width of the strip of land between the roadway and the border of the right of way. Considering the scale of this very broad street, rows of trees should provide the proper setting, but will need to be tall enough. The size of the trees and the density of their arrangement might collide with the regulations which require ensuring a fire escape routes. Hence, the envisaged fire escape routes should be analysed against the trees and the Building development. A possible solution could consist in ensuring fire escape routes within the footways running along the strip of land in between the rows of trees and the buildings.

- **Bicycle paths.**

In view of the potentially high demand for bicycle traffic accessibility and the distances encountered in the discussed area, it is recommended to build two two-way bicycle paths on both sides of the right of way. The section where bicycle paths are recommended on

both sides stretches between road E75/Nowomiejska Street and Rybaki Górne Street. Because of the potential collisions between the cyclists and pedestrians, it is not recommended to introduce shared cycling and pedestrian paths on the northern side of the road. In the section from Rybaki Górne Street and up to the tunnel a single two-way cycling path on the southern side is reasonable.

6.2. Opinion on the assumptions of Nowa Wałowa Street in Gdańsk.

Produced by: Jan T. Kosiedowski, MSc Eng., Gdańsk 25/07/2022

1. Evolution of the functional assumptions of Nowa Wałowa Street in the planning of the transport system in the Gdańsk Agglomeration.

Phase One which comprised the planning works related to the production of the General Spatial Development Plan for the Port and Urban Complex of Gdańsk and Gdynia started in the 1950s. According to the plans, the main traffic routes were to be: the so-called Red Road along the railway line from Gdańsk to Gdynia (marked red on drawing No. 9), and the so-called Green Road (marked green) running from the port areas of Gdańsk, across the so-called 'Lower Terrace' up to Sopot Wyścigi, and up to its merging with the Red Road. The categories of both routes (according to the old standards) were defined as city express roads (E). Nowa Wałowa Street classified as a fast traffic road (P) constituted one of routes of the basic layout. It served as a link between the route leading from Warsaw and the Red Road at Brama Oliwska from the Small Southern Ring Road of Gdańsk (not envisaged in later planning studies). The route followed a flyover along the Gdańsk Shipyard estate, parallel to the existing Wałowa Street.

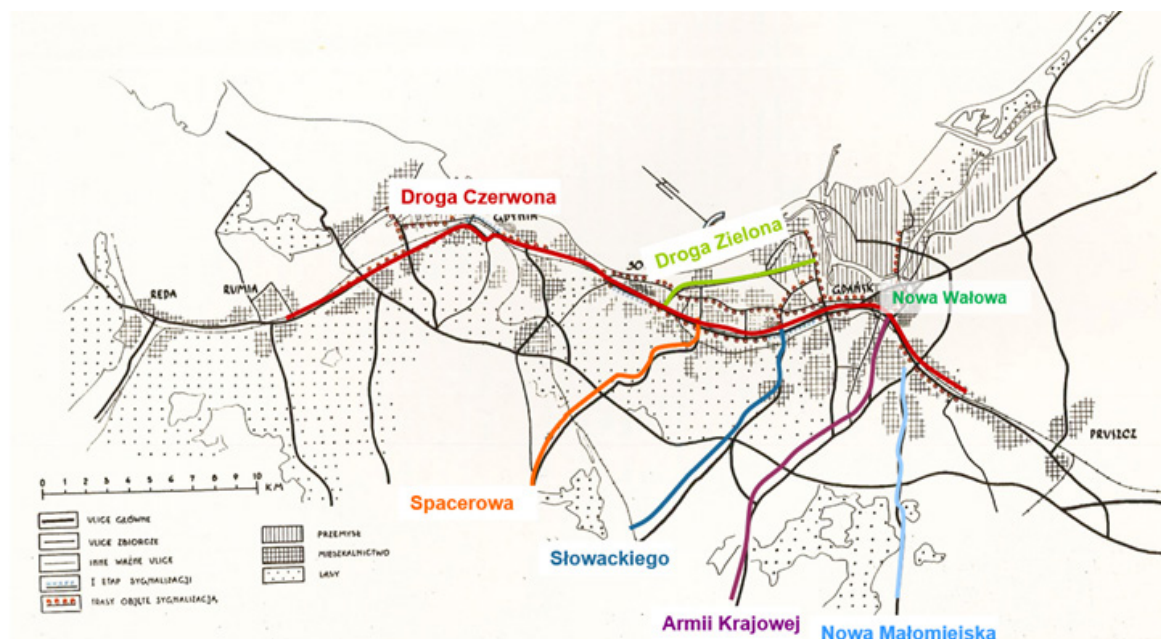


Fig. 10. Road layout of the Gdańsk – Gdynia complex dating back to the 1970-80s.

Produced by: Jan T. Kosiedowski.

The planning works conducted in the following years (1970-80) focused on the agglomeration transport system and covered roads and public transport (Fast Commuter Train [SKM] stops of Przymorze and Gdańsk South, tram and trolleybus lines). The design works were coordinated by a team of designers of the Municipal Construction Design Office [BPBK] in Gdańsk: Eng. J. Bogusławski, Eng. A. Poznerowicz, and Eng. J. Góra, with the participating Study Bureau of the Voivodship Urban Planning Office and the Gdańsk University of Technology. Phase Two – the changes in the political system (the fall of socialism), or the so-called transformation,

radically changed the operating conditions of Polish economy. As for the Gdańsk Agglomeration, the changes triggered release of a substantial stretches of land, part of the shipyard-owned estate included, from their industrial functions. This is how the concept of development of the Young City on the post-shipyard land emerged, with Nowa Wałowa Street playing the role of the main traffic axis of the new district. The concept of the Young City organisation structure was developed by a team from the Gdańsk University of Technology headed by Prof. M. Kochanowski. The local plans were developed by the Gdańsk Development Office. Prerequisite for commencing the investment works was the construction of a road link between Aleja Zwycięstwa Street (Brama Oliwska) and the Young City area BPTO, a Scandinavian investor won over by Synergia 99, undertook to carry out the task. This is how the first stretch of Nowa Wałowa Street came into being - the flyover spanning the railway tracks and Jana z Kolna Street up to the junction with Rybaki Górne Street. The "yellow" lattice overpass repaired from the city funds was designated to serve as a pedestrian and bicycle pass. Sloping ramps and lifts for the pedestrians, disabled and cyclists were to be put in place under the Jana z Kolna Street redevelopment project. Another challenge Gdańsk faces is to limit the transit traffic and expand the tram network in the city centre.



Fig. 11. . The effect of moving some of the traffic out of the city centre – unification of the Main City with the Lower City and the Railway Station. Produced by: Jan T. Kosiedowski..

The most recent study concerned the multivariant spatial and programme concept for the task: NOWA WAŁOWA PHASE II, created in 2021; the study covered the road-building trade but was interrupted due to the loss of financial liquidity by BPBK SA and declaration of its insolvency. The Maritime Office in Gdynia issued the decision for the concept, laying down the conditions to be satisfied by Nowa Wałowa Street in its section crossing the Motława River (letter ref. No. INZ1.1.8101.10.2021. MGw of 09/09/2021). The opinion permits a draw bridge variant, provided a navigation analysis is first conducted and uninterrupted traffic of vessels along the Motława River is guaranteed.

2. Analysis of the study produced by the City Initiative Association, intended as guidelines for further design works on Nowa Wałowa Street.

The study produced by the City Initiative Association was preceded by a cycle of workshops with the participation of City Architect, Prof. Piotr Lorens, representatives of the City Architect Office, City Development Office, community activists, investors, residents, and members of the City Initiative Association, with Dr Piotr Czyż leading the workshops. The results of the works were grouped forming the issues presented below, where individual panels reflect the functional assumptions worked out by the team:

A. The external context determining the character of the street

An important starting point was adopted in developing the program for the Nowa Wałowa Street space, namely of not limiting the assumptions to the street's right of way. The design assumptions for streets are typically limited to the development of the right of way, with the land neighbouring on the street (road) left for the designers and investors in the adjacent plots. This typically resulted in no uniformity of the whole area and obvious isolation of the right of way. The creation of a technical lane devoid of any aesthetic values consequently affected the values of the entire urban complex. The proposed inclusion of the public spaces adjacent to Nowa Wałowa Street in the development design offers a chance of avoiding the effect of the street's alienation from the Young City estate. It gives a chance of creating a high-standard city district where public space and the space owned by private investors will blend to create a uniform whole of aesthetic and functional values.

B. The preferred development of the street-facing zone and pedestrian space – division into functional zones

The division of the planned course of the street into functional zones, as developed during the workshops, refers to the planned development of the individual sections of the Young City. Identification of individual spaces of the representational, service, and recreational nature is absolutely justified and requires no word of comment. Linking individual fragments of the street with the functions of the adjacent land enables the creation of distinguished urban interiors. The inclusion of the area neighbouring on the flyover as an integral zone of the whole layout is an important proposal, as it will prevent degradation of the areas along the railway line, Jana z Kolna Street, and the Workers' Colony. For many reasons, the financial ones included, BPTO, the former investor in a major part of the Young City, limited the links between the land covered by the investment project and Aleja Zwycięstwa Street to the absolute minimum required by the provisions of the contract. The City's decision to spin off the tunnel section as a separate task is also very advantageous. It enables commencement of the construction works in the district and leaves time for an analysis of the solutions viable for the Motława River crossing whilst avoiding the pressure of time related to: the costs, analysis of navigation on the Motława River so as to guarantee access to the marina (short times of opening and closing the draw bridges), and the thread of flooding the tunnel being a public road (irrespective of the flood protection measures applied by private investors). The arrangement of the financing of the subsequent investment tasks in the field of infrastructure, roads, and land development may be correlated with the advancing investment works on the land owned by the developers. According to the plan, the 'representative zone' at Stary Dwór – Siennicka Streets was reserved for a public transport integration node with a tram terminal. The investment value of the land is high. It is worthwhile to reanalyse its designation, starting from the opinion issued by ZTM on the construction of a tram terminal there. Today, the area no longer plays a peripheral or 'post-industrial' role.

C. The preferred layout of the tram traffic network

The proposed route of the tramway has its functional advantages and coincides with the variant developed by BPBK SA in 2021 which assumed laying the trackway in Nowomiejska Street, then continuing symmetrically between the roadways of Nowa Wałowa Street. The proposed location of tram stops is also optimal with the only exception referring to the stop in the Motława River tunnel. If the decision to build the tunnel is upheld, the location of the stop will call for a thorough analysis of the risks to the passengers and their interest in the location, the designing of the flood protection measures and lifts for the passengers, the disabled, and cyclists, as well as analysis of the stop construction costs versus its utilisation.

Here are the other assumptions and underlying conditions which call for discussion and clarification:

- the advantages of locating the tram line in Nowomiejska Street are as follows: a) bringing the traffic closer to the ECS and farther from the residential buildings of the Workers' Colony (potential noise).
- potential disadvantages: a) the need to ensure efficient control of the traffic lights at the point where the tramway would cross Nowomiejska Street and the impact of that crossing on traffic control at the neighbouring junctions with Jana z Kolna Street, b) no final concept of redevelopment of Jana z Kolna Street in its single-roadway section once PKP has blocked the option of demolishing the old Gdańsk Stocznia signal tower.

Positive aspects:

- the construction of a new section of Nowa Wałowa (ks. Popiełuszki Street), with a two-way (double track) tram line towards the Motława River is doubtlessly an important city-conductive factor for the Young City,
- once in place, the line will not only bring the Motława River crossing closer, but also help verify and inject realism to the proposals of building a tram line towards the Main City in Podwale Staromiejskie Street (joining in Wały Jagiellońskie Street at the Upland Gate).

D. The preferred layout of the vehicle traffic

As concerns roadbuilding solutions, the preferred solutions appear compatible. The cross-section of the Nowa Wałowa roadway is symmetrical, the tram trackway embedded in the wearing course, the roadways on both sides 3.5 metre wide. The tram stops are of the Vienna type with the stop platform at the pavement level, which enables the passengers to enter a low-floor tram from the level of the pavement. The approach ramps which bring the wearing course to the level of the tram stop area ensure safety of the passengers getting on or off the tram, since they force the drivers to slow down before entering the tram stop zone. The above solution has been employed in Stryjewskiego Street in Stogi. It is presented in the visualisation included in the above 'Opinion' and represents one of the variants of the BPBK SA concept. Noteworthy, the solution was presented at the workshops by Karolina Aszyk, Eng., as the variant recommended by BRG. The only difference in the cross-section dimensions comes down to the width of the roadway which, for roadways with kerbs on both sides should be 4.5 metres.

The layout of the junctions proposed by the 'City Initiative', including all turnings to: Nowomiejska, Rybaki Górne, and Nowa Stępkarska Streets (access to the museum), and the junctions located in between them envisages right turns only. Such organisation should effectively solve the management of vehicle traffic in the Young City.

E. The preferred layout of foot and bike traffic

In my opinion, the assumptions adopted by the team are optimal.

- symmetrical arrangement (on both sides) of the pedestrian routes, with pedestrian crossings at junctions. An independent crossing for the Road to Freedom,
- a two-way bicycle path on the southern side, and bicycle traffic permitted in the pedestrian zone on the northern side.

F. The greenery

Linear row arrangement of tall green should prevail so as to give the street the character of an alley. The arrangement was adopted in the old urban and greenery planning in Gdańsk and continues to be preferred and regularly implemented today. The green trackway concept, on the other hand, contradicts the assumed passable embedded trackway. Moreover, a green trackway is a complex and expensive solution, posing maintenance problems along short sections. The lawn is a system requiring appropriate conditions and regular maintenance.

G. The delivery zones, technical lanes, and technological ducts

For technical and organisational reasons, delivery zones should be envisaged for the commercial area. Importantly, care should be taken to blend them with the street structure. Following the suit of Dutch cities, delivery zones play various functions at different times of the day: in the morning they should enable unloading of the goods, in the afternoon they can serve trade purposes, while in the evening they can be used for recreational purposes. Technical lanes: in accordance with the BRG guidelines (the Gdańsk City Street Standard), man-accessible (water tight) ducts for street technical network and infrastructure should be envisaged. The investment project must take into account and coordinate redevelopment of the sewer running from the shipyard areas on the Ostrów Island to the city grid in the neighbourhood of Jana z Kolna Street and Solidarity Square (the existing pump-driven sewer under the Still Vistula River collides with the investment land of the Young City).

3. Recapitulation and conclusions

- The developed material provides valuable complementation of the guidelines for comprehensive development of Nowa Wałowa Street and its vicinities. It is also important for the investors whose land neighbours on the street.
- Just like the Gdańsk Agglomeration, Nowa Wałowa Street has witnessed numerous changes as concerns the significance and functions of the streets in the Tri-City transport system. The change in the functional, technical, and aesthetic solutions is related to the changed approach to the role of a street which no longer merely serves transport, but represents an important component of the public space.
- The tunnel built under the Still Vistula River is an important factor in the traffic system as it has enabled changing the functioning of the vehicle transport and removing some of the transit traffic from the city centre.
- The first stage in the construction of Nowa Wałowa Street (up to the tunnel) should be combined with injection of order into the areas around the flyover, Jana z Kolna Street, Narzędziowców Street, and the 'yellow' overpass, the latter to be equipped with a lift (serving the disabled and cyclists) to take the users down to the level of Jana z Kolna Street.



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